

WHAT IS CLAIMED IS:

1. A method for recognizing a request for data transmission by a mobile/base station RRC (Radio Resource Control) using a network transfer device, by which the mobile/base station RRC can recognize the request for data transmission using the network transfer device in a state where recognition of the request for data transmission is disabled, the method comprising:

(a) the mobile/base station RRC setting the network transfer device in a suspend state;

(b) the network transfer device in the suspend state recognizing the request for data transmission to an up/down link, and sending a message to the mobile/base station RRC to inform the mobile/base station RRC that it recognizes the request for data transmission;

(c) the mobile/base station RRC recognizing the request for data transmission according to a received message from the network transfer device and transiting to an active state; and

(d) the network transfer device transiting to the active state using the mobile/base station RRC.

2. The method as claimed in claim 1, wherein the network transfer device comprises an RLC (Radio Link Control) protocol control network of the mobile/base station.

3. The method as claimed in claim 1, wherein the network transfer device is a PDCP (Packet Data Convergence Protocol) control network of the mobile/base station.

4. The method as claimed in claim 1, wherein (a) comprises:

(a-1) the base station RRC setting the base station RLC in the suspend state and then setting a base station PDCP in the suspend state; and

(a-2) the mobile station RRC setting the mobile station RLC in the

suspend state and then setting a base station PDCP in the suspend state.

5. The method as claimed in claim 1, wherein (a) comprises:

(a-1) the base station RRC setting a base station RLC in the suspend state and then setting a base station PDCP in the suspend state; and

(a-2) the mobile station RRC setting a base station RLC in the suspend state.

6. A system for controlling a mobile/base station radio resource, comprising:

means for enabling a mobile/base station RRC to recognize a request for data transmission in a state where recognition of the request for data transmission is disabled;

means for setting a network transfer device in a suspend state using the mobile/base station RRC;

means for causing the network transfer device to recognize the request for data transmission to an up/down link and sending a message to the mobile/base station RRC to inform the mobile/base station RRC that the network transfer device in the suspend state recognizes the request for data transmission;

means for causing the mobile/base station RRC to recognize the request for data transmission and transit to an active state according to a received message from the network transfer device; and

means for transiting the network transfer device to the active state using the mobile/base station RRC.

7. The system as claimed in claim 6, wherein the means for setting the network transfer device in the suspend state comprises:

means for causing the base station RRC to set a base station RLC in the suspend state and then to set a base station PDCP in the suspend state; and

means for causing the mobile station RRC to set a mobile station RLC in the suspend state and then to set a base station PDCP in the suspend state.

8. The system as claimed in claim 6, wherein the means for setting the network transfer device in the suspend state comprises:

means for causing the base station RRC to set a base station RLC in the suspend state; and

means for causing the mobile station RRC to set a base station RLC in the suspend state.